## Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A flow sensor, comprising:

a housing comprising a fluid inlet and a fluid outlet;

a bypass disposed between and fluidly connected to the fluid inlet and the fluid outlet, the bypass comprising at least one capillary tube; and

a sensor unit comprising a sensor conduit having a sensor conduit inlet fluidly connected to the fluid inlet and a sensor conduit outlet fluidly connected to the fluid outlet ~~fluidly connected to the housing inlet and outlet by a sensor conduit~~, wherein the at least one capillary tube has a length substantially equal to a length of the sensor conduit.

2. (Original) The flow sensor of claim 1, wherein the at least one capillary tube has a diameter substantially equal a diameter of the sensor conduit.

3. (Original) The flow sensor of claim 2, wherein the at least one capillary tube has a cross-sectional shape substantially the same as that of the sensor conduit.

4. (Original) The flow sensor of claim 1, wherein the sensor conduit is a capillary tube.

5. (Currently amended) The flow sensor of claim 3 ~~5~~, wherein an entrance effect of the at least one capillary tube is substantially equal to an entrance effect of the sensor conduit.

6. (Original) The flow sensor of claim 1, wherein the housing further comprises means for collecting a fluid.

7. (Currently amended) The flow sensor of claim 6, wherein the sensor conduit ~~comprises an~~ inlet is fluidly connected to the means for collecting a fluid.

8. (Original) The flow sensor of claim 6, wherein the bypass comprises a plurality of capillary tubes.

9. (Original) The flow sensor of claim 8, further comprising means for controlling fluid flow through the bypass.

10. (Original) The flow sensor of claim 6, wherein the bypass includes a plurality of apertures uniformly disposed about a periphery of the bypass.

11. (Original) The flow sensor of claim 1, wherein the at least one capillary tube has a cross-sectional shape substantially the same as that of the sensor conduit.

12. (Currently amended) A flow sensor, comprising:

a housing comprising a fluid inlet and a fluid outlet;

a bypass disposed between and fluidly connected to the inlet and the outlet, the bypass comprising at least one capillary tube; and

a sensor unit comprising a sensor conduit having a sensor conduit inlet fluidly connected to the fluid inlet and a sensor conduit outlet fluidly connected to the fluid outlet ~~fluidly connected to the housing inlet and outlet by a sensor conduit~~, wherein the at least one capillary tube has an entrance effect substantially equal to an entrance effect of the sensor conduit.

13. (Original) The flow sensor of claim 12, wherein the bypass includes a plurality of apertures disposed uniformly about a periphery of the bypass and in fluid communication with the sensor conduit, and wherein the sensor unit is substantially insensitive to the orientation of the flow sensor.

14. (Original) A process for measuring fluid flow comprising:

passing a fluid through at least one bypass tube having an entrance effect;

passing the fluid through a sensor unit having a sensor conduit with an entrance effect substantially equal to the entrance effect of the at least one bypass tube; and

measuring a characteristic of the fluid in the sensor conduit.

15. (New) The flow sensor of claim 1, wherein the at least one capillary tube is oriented substantially along a direction from the fluid inlet to the fluid outlet.